

# Re: Use of Extension Cord

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*Source:* <http://sci.tech--archive.net/Archive/sci.electronics.basics/2005-12/msg00139.html>

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- *From:* Jasen Betts <jasen@xxxxxxxxxxxxxxxxxxxx>
  - *Date:* Sun, 04 Dec 2005 07:09:49 -0000
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On 2005-12-03, John Fields <jfields@xxxxxxxxxxxxxxxxxxxx> wrote:

>>That is the section where you are wrong. You are not required to create any heat for an AC to work, you just MOVE the heat.

>

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> Think of it like this:

>

> Let's say that you have a ton of water at 20C which you want to heat  
> to 30C and another ton of water at 20C which you want to cool to  
> 10C. In either case, the work done on the water will be the same,  
> but in order to heat it up I only have to stick a resistor in the  
> water and send electrical current through it. In order to cool the  
> water down I have to remove the same amount of energy from the water  
> that I used to heat the other ton of water, but I don't have a magic  
> resistor which cools down and absorbs heat when I run current  
> through it.

>

> What I \_do\_ have is a system which can remove the energy from the  
> water and cool it down, but only at the expense of having to use  
> more energy to cool the water than it took to heat it.

> Look at it another way:

>

> How efficient is a heater? 100%. That is, it turns \_all\_ of the  
> energy put into it into heat.

> If an A/C system is, then, less than 100% efficient, (and we all  
> know it is) it's less efficient than a heater. Case closed unless  
> you wanna fuck around some more with your jive-ass bullshit.

As a heater it's close to 100 percent efficient, (some of it's output is noise, wind, vibration etc) but there's most of the energy that goes into it is converted to heat.

On top of that heat there's also all the heat that's being transported by it. so that's how heating efficiencies in excess of 100% are achieved.

Bye.  
Jasen

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- **References:**

- ◆ **Re: Use of Extension Cord**
  - ◇ From: John Fields

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